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To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and im rove the character of the service rendered to the public.

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DECREE IN ADMIRALTY.

In the Admiralty branch of the United States District Court Judge Addison Brown, of New York handed down on Monday an opinion in the case of Robert Sheridan against the steam tug Eddie Garrison and the ferryboat South Brooklyn, arising out of a collision between the ferryboat and the tug while the latter was towing libellant's canal boat on Aug. 16, 1894.

The Judge's opinion finds the South Brooklyn to blame for imprudent navigation and finds that the tug was navigating unlawfully too near the shore. The damages are divided, and decree entered for libellant against both vessels.

NEW YORK AND NATIONAL COMMERCE.

Recapitulation of the foreign commerce of the port of New York, compared with all ports of the United States for the fiscal year ending June 30, 1884:

FOREIGN MERCHANDISE, INCLUDING COIN AND BULLION.

	Port of New York.	Total all ports U. S.
Imported	$483,835,595	$740,720,293
Exported	24,837,828	46,808,520
Consumed and on hand	$458.997,767	$693,921,773

DOMESTIC MERCHANDISE, INCLUDING COIN AND BULLION.

Exported	$402,644,968	$972,761,378
Excess of foreign imports over domestic exports at the port of New York	31,190,627	.....
Excess of domestic exports over foreign imports at all ports of the United States...	.....	232,031,085
Total foreign commerce 1893-94	961,318,391	1,760,300,191
" " " 1892-93	1,034,365,404	1,907,851,912
Decrease of port of New York	73,047,013	.....
Decrease at all ports of U. S.	.....	147,551,721

LAKE LEVELS.

The following in regard to the effect of draining water from the lakes via. the Chicago drainage channel is furnished by Gordon H. Nott, of Chicago: "A short time ago a party familiar with the great lakes of Huron and Michigan made the statement that if all the sources of water supply were cut off from these lakes it would take many years to lower them sufficiently to interfere with navigation through the St. Clair River, St. Clair Lake, and Detroit River. To test this assertion it is only necessary to multiply and bring their area into square feet. Assume that Huron and Michigan represent 46,000 square miles, this area represented in feet is as follows: 1,282,406,400,000 square feet. The same party said that a discharge of considerably more than 200,000 cubic feet per second would not lower these lakes during long years enough to interfere with navigation. Two hundred thousand cubic feet per second, which may may be a fair average for the first year of discharge, gives these figures for discharge in one year, with the income cut off, 6,307,200,000,000 cubic feet, which is nearly five feet off for 365 days. It is merely multiplication to reach this result, but the figures are grand in their proportions. The inland fresh water seas are nicely balanced by nature and it will not answer to meddle with her arrangements."

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 9TH DIST.,
CHICAGO, ILL., Jan. 15, 1895.

Notice is hereby given that a 360° lens has been substituted for the 180° lens in the Pierhead tower on the South Pier at Muskegon, Mich. The light can now be seen from Lake Muskegon and when just open beyond the hills on south side of channel, furnishes a guide for entering the channel from Lake Muskegon.

By order of the Light-House Board,

COMMANDER J. H. DAYTON,
Inspector 9th Light-House District.

LAKE MICHIGAN, MICHIGAN—ST. JOSEPH HARBOR.

SAILING DIRECTIONS.—A dangerous shoal has formed on the N. side of the channel between the piers, extending from a point nearly abreast of the outer end of the south pier to the life saving station. In entering, a vessel should keep well over to the south pier before reaching the end of the pier and hold her course on that side until past the life saving station, as the northern part of the channel has less than 10 feet of water.

By order of the Light House Board.

JOHN G. WALKER,
Rear-Admiral U. S. N., Chairman.

REMOVAL OF GODERICH FRONT RANGE LIGHT BUILDING.

Referring to Notice to Mariners No. 29, of 1894, the extensions to Goderich breakwater piers have now been completed. There has been added to the north pier a length of 300 feet running due west, and a length of 110 feet running northwest, ending in a block 50 feet wide at the outer end. There has been added to the south pier a block 110 feet long by 40 feet wide, running S. W. by W. ⅓ W.

In consequence of this extension, the front tower of the range lights on the north breakwater has been moved 300 feet west from its former position to a block built at the angle in the breakwater. The middle of the tower now stands 11 feet from the north edge of the breakwater and about 117 feet from its outer extremity. The cribwork block upon which the tower stands is 16 feet square by 4 feet high. The height and character of the light have not been changed.

The back light tower stands in its old position 1,509 feet W. by N. from the front one. To enter the harbor the range lights should be kept in one E. by S. until nearly up to the front light. The front light should then be left on the port hand in passing. The width between the breakwaters is 200 feet. WM. SMITH,

Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries, Ottawa, Canada, 27th December, 1894.

DULUTH WHEAT UNDER CHARTER.

According to the telegraphic advices from Duluth, brokers have contracted for the delivery of 2,000,000 bushels of wheat at Buffalo from that port in the spring. Whether tonnage for this grain has been secured, or whether the move is merely a speculative one on the part of the brokers, cannot be learned at this time.

NEWS AROUND THE LAKES.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

John Corrigan vessel owner of Cleveland was in this city Tuesday.

C. E. Benham, vessel agent of Cleveland was in this city, Monday, and left in the evening for Detroit to attend the Shipmasters' Convention.

J. G. Keith & Co. chartered the steamer G. W. Robey and schooner Redwing for wheat at 2¾ cents both for winter storage and delivery at Buffalo in the spring.

Palmer Cook & Calbick chartered the steamer W. P. Ketcham and consort George B. Owen for wheat at 2¾ cents for winter storage and delivery at Buffalo in the spring.

The Independent Co.'s tug William Dickenson towed the steamer Frontenac from South Chicago Saturday night to the Illinois Central Elevator at this port to load grain.

Captains Robert Young, David M. Cochrane, George Tebo, Louis Windmuller and Noble Higgie left here Monday for Detroit to attend the Shipmasters' Associations Convention and ball.

Captain John Prinderville chartered the barge Northwest for 105,000 bushels of corn at 1¾ cents and steamer Frotenac for 105,000 bushels of corn at 2¼ cents both for winter storage and delivery at Buffalo in the spring.

Wiley M. Egan chartered the steamer Siberia for 70,000 bushels of wheat at 2¾ cents the steamers Fayette Brown and E. M. Peck for 85,000 bushels of corn both at 2¼ cents, all for winter storage and delivery at Buffalo in the spring.

Wm. Saville, shipbuilder, is giving the steamer Tom Adams 60 feet new rail on the starboard side, new hatch beams, considerable new floor ceiling and some deck calking. The steamer John Owen is getting new floor, ceiling and beams and deck calking.

The Dunham Towing & Wrecking Co.'s tug T. T. Morford left here Monday night for Milwaukee to tow the steamer City of Paris to this port and their tug Mollie Spencer to South Chicago Tuesday to tow the steamer Christopher Columbus from her dock to the shipyard.

Carr and Blair chartered the steamer George I. Hope for corn at 2⅜ cents and consort John C. Fitzpatrick for wheat at 2¾ cents, the steamer W. H. Gratwick No. 1 for corn at 2¼ cents and barge Brightie for wheat at 2½ cents, all for winter storage and delivery at Buffalo in the spring.

Thos. Miller of Miller Brothers Dry Dock Co. has gone to Buffalo to attend the Dry Dock Associations' Convention on Thursday. Large repairs on the steamer Servia are in progress. She will go out of dock in about 2 weeks. The steamer W. R. Stafford will go out of dock this week and the steamer Charlemagne Tower will go in.

The Marine Iron Works have contracted to furnish a triple expansion engine with cylinders 4½ by 7 and 12 by 8 inches stroke with copper keel condenser and air pump and a complete outfit and a Robert's water tube marine boiler to carry 200 lbs. steam pressure, for a steam yacht 60 feet long, 14 feet beam, for the excursion business, now building at Charlevoix, Mich., by Capt. Joseph Beauvais.

The fire boat Yosemite when going up the river to a fire in the north branch Friday night collided with the steamer City of Berlin laying outside the steamers Chemung and New York at the St. Paul dock just below Lake street bridge. The Yosemite struck the Berlin on the starboard side opposite her boiler house and broke several outside planks and some ceiling inside, above the load line. The Yosemite escaped without damage.

While returning from the Lake View crib to Chicago on Monday, the intake pipe of the steamer G. T. Burroughs froze up and her water supply was cut off. Then her engineers drew the fires and the helpless boat drifted among the floating blocks of ice and blew her whistle for help. The life-saving crew sent out a surf boat with three men, the whole in a tow of a tug. They led a line from the tug to the steamer, after much difficulty, and the Burroughs was towed into port. The heavy sea running at the time compelled the steamer Menominee to abandon her regular trip to Milwaukee and return to Chicago.

The Marine Iron Works, W. G. Nourse manager, builders of marine engines, boilers and equipment, steam launches, steam yachts and tug boats, have purchased the entire working plant and complete equipment, formerly operated by Chas. P. Willard & Co., and have made important additions to the machinery and patterns. The most efficient of the former working force are now in their employ. With machine shops, boiler shops, pipe and fitting up shops as well as boat yard and offices altogether and under one supervision, absolutely reliable work is produced with despatch and on as economical a basis as it is possible to formulate.

After having been connected with the Goodrich transportation Company over forty years. Gregory Hurson has resigned as secretary and general traffic manager of that corporation and will establish a line of steamers the coming season between Milwaukee and Chicago. He will be succeeded by F. C. Reynolds, of Milwaukee, who has been identified with lake shipping for many years.

CLEVELAND, O.

Special Correspondence to The Marine Record.

Capt. W. R. Williams will command the barge Amboy next season.

Capt. Fred A. Graves, of Geneva, O., will take charge of the steamer W. H. Wolf on the opening of navigation.

The steamer Olympia completed repairs at the Ship Owners' dry dock Wednesday, and the schooner Fontana took her place in the dock.

Capt. Frank Perew and Edward Smith, Buffalo vessel owners, and Capt. Fred. Rae, of Vermillion, O., paid this port a visit on Wednesday.

A vessel owner here would like to dispose of a 1,400 pound wooden stocked anchor and 45 fathoms of 1⅛ inch chain. He would exchange for a smaller one more suitable for his vessel.

The several committees of the Lake Carriers' Association appointed to deal with the subject, will meet in joint session at this port next Saturday to discuss the proposed changes in the pilot rules regarding passing signals.

W. C. Haskell, United States marshal for the northern district of Ohio, will sell the barges Wyandotte, H. C. Sprague and William Case on Saturday, January 19, at 2 p. m, the two latter from the front door of the Toledo government building, and the Wyandotte at this port, where she is now lying. The terms of the sale will be cash.

The annual meeting of the Wilson Transit Co. was held at Wickliffe on Tuesday. Officers and directors were elected as follows: President and treasurer, Capt. Thomas Wilson; vice president, Robert McLauchlin; secretary, H. D. Goulder; directors, Capt. Thomas Wilson, Robert McLauchlin, J. E. Upson, W. D. Rees and George L. Quayle.

A libel has been filed in the U. S. District Court against the city for damages sustained by the schooner Columbia through the fire tug running into her while the schooner was moored to a dock in the Cuyahoga River last November. Repairs cost $775 and the libel is taken out by Captain Loftus Gray. The attorneys for the owner are Messrs. Goulder and Holding.

The steamers of the Minnesota fleet will be fitted with an equipment for towing barges next season. It is expected to tow the two steel schooners now being built for the Minnesota Line at the yards of the Chicago Ship-Building Co., behind any one of the steamers that may be most convenient at the time. The schooners or barges will carry the steam towing machine patented by the American Ship Windlass Co., Providence, R. I.

The annual meeting of the Richardson Transportation Co. was held at Rockport on Wednesday. H. J. Webb, H. C. Ellison, W. A. Richardson, F. W. Leek, E. J. Jackson, Thomas Jones and Harvey D. Goulder were re-elected directors. H. J. Webb was chosen president, H. C. Ellison, vice president, and W. C. Richardson, secretary and treasurer and general manager of the company.

The handsome steel sail yacht Priscilla built to compete with the Genesta in defending the America's cup has been purchased by Beeman and Worthington of the Cleveland Yacht Club to take the place of the Wasp recently sold to Buffalo owners. The Priscilla is ninety feet long and will no doubt prove the fastest yacht on fresh water when she comes up here next spring, however, challenges will be in order and it is possible that one or two lake yachts may at least tie the salt water craft in ordinary lake weather.

Mr. Alva B. Keller, of this city, who has been for several years wheelsman on different steamers of the Bradley Line, running between Buffalo, Duluth and Chicago, has taken up his quarters in New York city for the winter and entered as a student in the New York Nautical College, where he is undergoing a thorough course of navigation tuition under the personal care of Capt. Howard Patterson, the principal of the institution. Mr. Keller, who resides at 114 Bolton avenue, was last employed on the steamer Gladstone.

The Cleveland Ship Building Co. will build the engines and boilers for the large steel steamer just contracted for by the Interlake Shipping Co. of this port, Pickands, Mather & Co. managing owners with the Chicago Ship Building Co. The efficiency of the machinery of the new steamer Kearsarge has given such excellent satisfaction that it will be duplicated in the latest contract, viz; Engines, triple expansion, cylinders 23, 38 and 62 by 40 inch stroke, Boilers, two of the Scotch type 14 feet diameter by 13 feet in length to carry 170 pounds steam.

The local lodge have completed their arrangements for the annual reception and ball of Lodge, No. 4, of the Shipmasters' Association, which has been set for Thursday evening, February 7. Invitation cards are now being issued. Double tickets, including supper, will be sold for $3, but must be presented with an invitation signed by a member of the lodge. The committee of arrangements comprises President W. S. Mack, Captains Bernard Nelson, Henry W. Stone, Clint G. Ennes, John B. Hall, John McNeff, James B. Lowe, Charles A. Benham and W. A. Collier.

The remains of Capt. J. R. Jones, who died at his home in Brooklyn, O, last week was taken to Port Huron for burial. Capt. Jones had been ill for nearly a year of cancer of the stomach, being confined to his bed the last three months. During this period he was unable to retain nothing upon his stomach and life was kept up almost solely by the use of stimulants. Captain Jones sailed the lakes for many years, chiefly on the passenger boats Atlantic, Flora and State of Michigan, of the Grummond fleet, and was help in high esteem by the officers of that line, being also very popular with the public. A widow and two grown daughters survive him.

Regarding the specials in daily newspapers about combinations among iron mining companies in the Lake Superior region, Col. James Pickands, of the firm of Pickands, Mather & Co., which represents the Minnesota Iron Co. and other large ore mining and shipping companies, said: "The statement that iron ore is to be advanced 75 cents or $1 a ton in these times is absurd. The iron ore sales agents of Cleveland, who look after the sale and transportation of practically all the ore mined in the Lake Superior districts, have held several meetings within the past week, for the purpose of arriving at a common understanding as to prices for the coming season and of agreeing to a reasonable restriction of output. They well appreciate that any material advance in the price of ore is out of the question under present existing conditions of business."

Capt. J. B. McManus died Thursday last at his home, No. 34 Claremont street, after a comparatively short illness with consumption. Capt. McManus was one of the younger masters on the lakes. He had sailed in command for only the past three seasons, all in the steamer George Spencer, managed by Mr. B. L. Pennington, and stood high in the estimation of his employers. Capt. McManus has had more or less lung trouble for some time, which was undoubtedly aggravated by the rough weather to which his occupation exposed him. He remained in command, however, until the close of the season and laid up his boat. He was married, but has no children. The death of Capt. McManus was formally announced to Cleveland Lodge No. 4 of the Shipmasters' Association and appropriate action was taken upon his death, a part of the resolution being that every member of the lodge should, if possible, attend the funeral, which took place from the family residence at 2 o'clock Sunday afternoon, attended by members of Bigelow lodge No. 243, F. and A. M.

On Friday last was held the usual weekly meeting of Cleveland lodge No. 4, of the Shipmasters' Association. The session was very interesting. The members are alive to the necessity of improving the standard of sea-

manship requisite to the command of property to the extent of a modern lake ship and her cargo, and a crusade on these lines will undoubtedly be pushed this winter. To this end the following was unanimously adopted: "Resolved, That the owners of vessel property can, with benefit to themselves, employ their masters from the Shipmasters' Association, and that our delegate to the grand lodge be instructed to bring the matter before the grand lodge, looking to that end." The lodge was informed that the United States Weather Bureau, through Mr. Norman B. Conger, of Detroit, marine agent, had expressed itself as anxious to know whether or not the weather signal stations on Thunder Bay and Middle Islands were of benefit in lake navigating. These stations have been in service for a comparatively brief period, but long enough for a test of their value. The lodge, by resolution, gave the enterprise its hearty endorsement. Among the members in attendance was Capt. F. A. Fick, who has almost entirely recovered from the attack of paralysis sustained some months ago with the exception of a slight weakness in his voice.

DETROIT, MICH.

Special Correspondence to The Marine Record.

Mr. Norman B. Conger, marine agent of the weather bureau stationed at this port has been ordered to Washington on department work. It it not likely that Mr. Conger's stay will be for more than a few days.

The Governor-General of Canada issued a proclamation on Saturday which places in effect the reciprocity clause on lumber passed by Parliament in the tariff act last summer. Shingles and pulp wood from the United States can now be shipped into Canada free.

Baker Bros. the well-known salvage firm of this port are confident of saving the cargo of steel billets which sank with the Alva Bradley on Lake Michigan, last fall. They say the billets are lying in good shape and that not a single one need be lost when operations are resumed next spring.

At the Detroit boat works there is being built for Edward Henkel, of Detroit, a steam yacht 104 feet long, 15½ feet beam and 9 feet molded depth. The material entering into her construction is pine, with mahogany pilot house and deck fittings. The engine is to be a triple-expansion, with cylinders 9½, 14 and 24 inches in diameter, with 14-inch stroke. The boiler is tubular, an invention of H. H. Taylor, of the Detroit screw works.

Captain A. Ruelle, the tug owner and a submarine diver, visited Toledo on Saturday to testify in a lawsuit ten years old. The suit arose over the loss of the tug Belle King, which foundered in Lake Erie about the year 1874. At that time M. L. Wilcox, of Toledo, owned a small tug named the Hope, and wished to use a larger one to do some dredge towing. He accordingly chartered the Belle King from a man named Paxton and let the latter have the Hope, agreeing to pay $5 a day difference between the tugs until he returned the Belle King. The King was wrecked near Put-in-Bay, while on her way from Sandusky to Cleveland with a dredge The wreck was not found for a number of years and Captain Ruelle took a contract for raising her. He invested about a thousand dollars in the job and when she was raised she fell to pieces. He took the machinery for his wrecking bill, and managed to get about $900 out of it. Paxton took the Hope to the upper lakes and sold her. Pat Smith, of Cleveland, the original owner of the Belle King, had a mortgage of $2,500 on her, and sued Wilcox for the amount of the mortgage. Captain Ruelle and Diver Fecteau were called upon to testify to the rotten condition of the tug when they raised her.

The fifth annual convention of the grand lodge of the Shipmaster's association composed of the following officers: Alex. Clark, Buffalo, president; George McCullough, Detroit, first vice president; John W. Cochran, Milwaukee, second vice president; Lyman Hunt, Buffalo, treasurer; W. A. Collier, Cleveland, financial secretary; W. E. Rice, Port Huron, chaplain; C. E. Benham, Cleveland, marshall; George Tebo, Chicago, warden; and C. H. Weeks, Bay City, sentinel, opened on Tuesday, about twenty delegates were present from the nine subordinate lodges in Buffalo, Port Huron, Chicago, Cleveland, Bay City, Milwaukee, Toledo, Marine City and Detroit. It may here be noted that the Shipmasters' association has grown from a membership of 22 in 1886, to 886 at the opening of the present year. In his annual address President Clark called attention to the fact that members fail to promptly pay their dues. He also said that masters should show more courtesy when passing each other in narrow waters. During the year the endowment assessments amounted to $13,484 and $13,000 was paid out for death benefits. The disbursements amounted to $1,820.90, leaving a balance on hand of $754.69. The first day was consumed in the appointment of committees and annual routine work. The election of officers will take place on Wednesday and the lodge will adjourn on Friday.

PORT HURON, MICH.

Special Correspondence to The Marine Record.

A meeting was held at Maccabee Temple Monday evening to perfect the organization of a board of trade. All citizens were invited to attend.

R. J. Cram is figuring with the Wolverine Dry Dock Co. to build a large and powerful tug to handle his dredges working at the foot of Lake Huron on the deep channel.

The Jenks Shipbuilding Company will build a tug for Capt. Byron Inman, of Duluth this winter. The contract was closed this week. The new tug will be about the size and model of the tug Boynton.

Capt. W. E. Rice will represent the shipmasters at the meeting of the grand lodge at Detroit. There has quite a number of the boys dropped out of the lodge on account of the poor season being unable to pay up dues.

The Ann Arbor car ferries have discontinued their winter service. The freight business was not sufficient to make daily service profitable, and less frequent trips would not keep the ice broken. They will resume business early in March.

The steamer Australasia is receiving repairs at the Wolverine Dry Dock on account of being in collision with the steamer Majestic at Chicago last fall. She will receive an entire new starboard bow. The steamer Pawnee is receiving some minor repairs at the same yard.

The Owen Line underwent a change in management at the annual meeting of the stockholders in Chicago last Thursday, by the election of H. H. Clough of Elyria, Ohio, treasurer and general manager to succeed Wm. R. Owen, and Bert Clough secretary to succeed D. F. Webster. Parks Foster of Elyria, Ohio, was re-elected president. The directors are Wm. Q. Ely, Detroit; Parks Foster and H. H. Clough, Elyria, Ohio; L. W. Windermuller and W. R. Owen. The Owen Line owns and operates the steel steamers Parks Foster and R. H. Owen.

K. M. R. Co.

MANISTEE, MICH.

Special Correspondence to The Marine Record.

The Marine Engineers' Beneficial Association, No. 44, Manistee, have elected the following officers for 1895: Allen McKee, president; Chris. Dahn, vice president; James W. Myers, recording secretary; Richard Winkler, treasurer; Frank Winkle, financial secretary; H. F. Otto, chaplain; Frank McMillan, conductor; R. Marsh, door-keeper; Adolph Winkle, out door-keeper.

REPORTED BY THE LOOKOUT.

The Port Huron tug Thompson is stationed at Ludington for winter service in the ice.

Steps are being taken for the establishment of a marine hospital at Benton Harbor, Mich.

The heavy fall of snow is very encouraging to the lumbermen during the past week who have begun operations already. They have been feeling blue all winter over the non-arrival of snow.

Capt. A. O. Krugar, the local inspector of hulls at Marquette, Mich., celebrated his sixty-fifth birthday last week, and was presented with a handsome gold-headed cane by the prominent citizens of the port.

Dunbar & Sullivan, dredging contractors, are building a new iron dump scow at Sault Ste. Marie. They will expend $75,000 this winter in rebuilding their outfit of dredges, tugs, scows and other shipyard work.

The Ann Arbor car ferries have been having a tough time on Lake Michigan the past week. The No. 1 boat was reported as fast in the ice Friday in Death's Door Passage, about half way between Washington Island and the mainland. She had been there twenty-four hours. The No. 2 arrived at Milwaukee in tow of the tug C. D. Thompson for a bow wheel and shafting.

Owing to the heavy gale which prevailed on Friday night the tug F. W. Gillett, owned by the Gillett Towing and Wrecking Co., Marquette, carried away her moorings and was driven hard ashore in the southern part of the city. It will be a very difficult task to get her off. This tug has for years done the bulk of the towing business at Marquette, and is valued at about $5,000.

Capt. Adolph Frietsch, who started from Milwaukee in his little craft for Queenstown, after barely managing to collect enough money to provision his boat, is now exhibiting himself and craft at the St. James theater, London, for $250 a week, he says. He writes that his wife is with him, that he expects to sell his little boat at a good price, and will probably build another and cross the Pacific ocean iu her.

In the Circuit Court of Cheboygan, Mich., on Tuesday, the attorney for the Delta Transportation Co., of Chicago, let the Cheboygan Lumber Co. take judgment for $24,000 in a case between them growing out of the burning of the lumber company's lumber in 1890, caused, it is alleged, by sparks from the steamer Minnie M. In the first trial a verdict of $14,000 was given. The Supreme court reversed the case and remanded it. The case of Burrows and Rust for damages under the same circumstances was tried twice in Bay City. The last time a verdict of no cruse for action was rendered. There is said to be s legal string tied to this $24,000.

As usual, and according to his annual custom, Capt. James F. Trowell, ex-harbor master at Milwaukee and now special weigher for the chamber of commerce, has issued an annual report of the lake marine commerce of the city of Milwaukee. According to Capt. Trowell's pamphlet there are this season in winter quarters at Milwaukee the following tonnage: Steamers, 54; schooners, 67; harbor tugs, 10; fishing steamers, 10; fire boats, 2; total, 143. Total steam tonnage, 62,398; total sail tonnage, 20,985; grand total, 83,383 tons. Capt. Trowell further points out the weights of grain as follows: Wheat, 1,000 bushels equals 30 tons; rye, corn and flax, 28 tons; barley, 24 tons; and oats, 16 tons.

Capt. Alexander McDougall has been granted a patent for an improved freight and passenger whaleback steamer, claim No. 529,295. The model has the usual type of whaleback curved deck, above which are the cabins supported on nine turrets. The forwurd turret is a separate isolated affair, arranged so as to deflect anp waves which may come oqer the bow of the vessel. There is also a bulwark in front of the cabins to aid in breaking the sea. A platform connecting the cabins with the turrets; a mast extending through the separate turret in which is a "crow's nest" for the use of a lookout; a derrick arm swinging over the platform; two smokestacks and the usual hatches complete the specifications.

The Sault Ste. Marie *News* states that the tug O. W. Cheney, of the Hursley Tug Line, which was sunk by the steamer Fayette Brown last summer, has been towed down the river and raised and is now on the beach near the mill of the Sault Lumber Co. Capt. Jay Hursley thought the tug might not have been injured very badly, so he decided to raise and rebuild her. Piles were driven all around the wrecked tug and with jack-screws she was raised with little or no trouble. The tug was jacked up so that she was entirely out of water, after which she was patched up and towed to where she now lies on the beach. Capt. Hursley found the tug in a much worse condition than he had expected, and says she will cost about double the amount he first figured to repair.

"The lake navigation," said Commissioner of Navigation Chamberlain, "has stood the strain of the past year better than that of any part of the country, no matter where. Indeed, I might say, it has probably a better record than any spot on the globe, so far as we have any information. The general depression which has extended to all parts of the word has had its effect on navigation and water transportation, and, as a result, there has been a reduction in tonnage and shipbuilding and all lines of business connected with the subject, not only in this country, but all over the world. This is probably because of the growth in the lake business which characterized the past few years. The increase in the tonnage and general business of the lakes has been something phenomenal, and while it could hardly be expected that it would pass through the general depression of the past year without feeling it somewhat, there has been less actual falling off there than in any spot on the earth that I know of."

ANENT THE FREE SHIP BILL.

The following self-explanatory letter has been written by Mr. Charles H. Cramp, under date of December 21, to the editor of the New York *Times*:

SIR.—It affords me pleasure to respond to your request of the 18th inst. for an "expression of opinion as to the probable effect on the American shipbuilding industry of a bill granting free admission to foreign-built ships and the materials of shipbuilding."

At the outset, I call your attention to the fact that "the materials of shipbuilding" are already free, so far as vessels for the foreign trade are concerned, by virtue of section 7 of the existing law. Hence, that branch of your inquiry may be dismissed at once with the remark that in the construction of the largest two ships ever built in America, and with two exceptions the largest in the world, I did not find it expedient to avail myself of the free material privilege.

Turning now to the other and more important branch of your inquiry, I answer that the passage of such a law would destroy the American shipbuilding industry.

Without tedious argument, I will exhibit in tabular form why such would be the result.

It will be inferred from what I have already said that the question of materials cuts no figure worth considering. The whole question at issue is one of labor and wages.

Last year I caused an exhaustive examination to be made of labor and wage conditions under which shipbuilding is done in Great Britain for the purpose of comparing them with the labor and wage conditions existing here.

This examination was made by an Englishman of no little prominence in the shipbuilding business, whose sources of information were authentic.

On receipt of his report, I took the conditions prevailing in Cramp's shipyard as the American standard, with the following result in 21 leading trades:

TRADE.	American rate per week.	British rate per week.
Patternmakers	$18 00	$9 00
Machinists	15 00	8 50
Boilermakers	15 00	8 50 to 9 00
Chippers and calkers	15 00	7 80
Riveters	12 00 to 14 00	7 50 to 8 00
Beam and angle smiths	15 00	8 40
Fitters up	15 00	7 80
Ship carpenters	18 00	9 60
Joiners	16 50	9 00
Painters	18 00	9 60
Coppersmiths	18 00	8 60 to 9 00
Shipshed machinemen	15 00	7 20
Furnacemen	11 00	6 00
Holders-on	9 00	4 20 to 4 80
Riggers	11 00	7 00 to 7 20
Plumbers	18 00 to 19 00	9 00 to 9 60
Drillers	11 00	6 40
Sheet iron workers	15 00	8 50
Molders (iron)	14 50	9 00
Molders (brass)	15 00	9 00
Laborers (as helpers)	9 00	5 20
Laborers (as handlers)	8 00	4 20

If you will examine the recent report of Consul Underwood you will find that his tables of British rates are a little less than mine. This is due to the fact that I have given the highest rates in each trade when working full time, while the consul makes a general average based upon wages actually paid for the time actually worked.

Now, when I say that a free ship law must destroy American shipbuilding, I offer the facts in the above table as the reason why, and until some free ship advocate can demonstrate that equal competition is possible under such disparity of labor conditions, or can suggest some way of lowering American wage rates to the British standard, I shall maintain my assertion.

I say that competition is not possible under such conditions, and I leave that branch of the subject there.

Now comes the question: "Is the existence of a shipbuilding industry in the country desirable or not?"

If it is not desirable it may as well be destroyed and argument ends.

But if it is desirable then any law that would destroy it must be unwise and unpatriotic.

I believe the existence of a shipbuilding industry is desirable as an element of national independence alone.

The North could not have maintained the blockade of the Southern coast, which throttled the rebellion, had there been no private shipyards in the Northern States, or had the Union been compelled to buy its ships in England.

A more recent and still more pointed instance is the experience of the Chinese navy in the present war.

Their navy was composed of ships built in Europe. Having no shipbuilding industry of their own, they were powerless to repair damaged vessels.

The result was that whenever one of their ships was crippled at all it was placed *hors de combat* for the rest of the war. In fact, any crippled ship might as well have been sunk at once as far as any further service was concerned.

The Japanese had in recent years developed shipbuilding, and though it was as yet on a small scale, it still sufficed to keep their ships in serviceable condition, and that fact far more than compensated for the inferiority of their navy in numbers and power of vessels.

In a word, the lack of a shipbuilding industry in China made her navy useless, irrespective of any other conditions.

There is another aspect of the subject which no one has touched upon as yet. That is the fact that the constant presence of a free ship bill on the calendars of Congress is almost as destructive to American shipbuilding as the passage of one would be.

Every Congress for 20 years has had a free ship bill.

This fact operating as a menace has continuously crippled American shipbuilding, because no one would order ships built for the foreign trade when a radical change in the conditions of ship-owning was threatened.

I think that this is one of the objects of the British combinations which sustain the free ship movement so pertinaciously.

Of course they would prefer to pass the bill. But, failing in that, they have done from Congress to Congress, as the next best thing for their interests is to keep a free ship bill on the calendar as a threat or perpetual menace.

Suppose any other industry or group of industries were constantly, for over 20 years, threatened with destructive legislation. How long could they last, and who could be found to invest capital in them?

In conclusion, I repeat that a free ship law would destroy American shipbuilding.

I then ask whether such destruction is or is not desirable from a national point of view?

A rational answer to this inquiry will enhaust the subject.

Very truly yours,

CHARLES H. CRAMP.

In line with the above the legislature of the state of Maine has just addressed a memorial to congress against the free ship bill as follows:

"The state of Maine has long been the largest builder of sailing ships of any state in the Union. For over a century and a half ship building and ship owning and the trades dependent on them have given employment on sea and land to the population of our coasts. In fifty of our towns these are the principle trades known to our people. The prosperity of a population of 200,000 people within our borders is inseparably connected with American shipping, the building, the owning, and the sailing of ships.

"To the agitation of measures pending in congress, which our people believe encompass the destruction of this industry, older than our state or nation, protected almost from the nation's birth by the laws which it is now proposed to repeal, our state cannot remain a silent witness.

If our registry laws have failed to increase our tonnage engaged in the foreign trade, which is now protected from foreign competition, yet in domestic tonnage, where they give full protection, we have built up a fleet larger than any other nation.

For our own State these laws have done more; they have enabled our shipbuilders to meet the change from wood to steel, and to establish within our borders extensive plants and yards, from which have been launched vessels for our merchant marine unsurpassed by any similar vessels in the world.

We ask our countrymen to recall the fact that under these laws, in the crises of three great wars, Maine has been enabled, far out of proportion to her numerical strength, to contribute to the national glory and success upon the seas, and to take warning that a repeal of these laws, while it means ruin to so many of our people, will be a deadlier blow to the national security and national defense: Therefore, be it

Resolved, That in the name of our state, united in common defense, without regard to party, we protest against any change in these laws, and that a copy of this resolve be sent to the Speaker of the House of Representatives, the President of the Senate and the State's delegation in Congress.

In the House of Representatives, January 11, 1895.
Read and passed finally. Llewellyn Powers, Speaker.
In Senate, January 11, 1895.
Read and passed finally. Geo. M. Seiders, President.
Approved. Henry B. Cleaves, Governor.

COMMERCE OF TACOMA, WASH.

Harbor master Clift's report of the ocean commerce of the port of Tacoma, for the year 1894 is as follows:

EXPORTS.	VALUE.
4,165,497 bushels wheat, foreign	$2,002,862
1,784,863 bushels wheat, coastwise	830,077
294,365 barrels flour	735,903
2,858,166 pounds canned salmon	264,751
1,074,984 pounds raw cotton	101,684
7,209 cases condensed milk	47,745
56,986,558 feet lumber	591,968
282,561 tons coal	938,852
Miscellaneous general merchandise	1,150,000
Total for 1894	$6,663,848
Total for 1893	5,802,165
Inward registered tonnage	594,456 tons.
Cargo tonnage, inward	75,515 "
Outward registered tonnage	583,966 "
Cargo tonnage outward	629,548 "
Number of deep sea arrivals	402

SAILING RULES.

There has been much concern among masters and pilots of vessels navigating the great lakes in regard to the new "rules of the road" which were enacted by Congress a few years ago, in consonance with the recommendations of the International Marine Congress, which held its sessions in Washington. By the concurrence of maritime nations, it has been agreed that these rules are to go into effect on March 1, next, and Congress enacted that they should go into effect not only upon the high seas, but should also apply to all waters connected therewith, navigable by sea-going vessels. This clause has aroused some question among those vitally interested in lake commerce, and both masters and owners, through their respective organizations, have ever since last summer been repeatedly asking for an interpretation of this clause, that they might know whether the international rules should apply to the lakes or not. For a long time they have been unable to obtain any ruling upon the subject, from either E. T. Chamberlain, the Commissioner of Navigation, James A. Dumont, Supervising Inspector General, or even from Secretary Carlisle, of the Treasury Department. However, a dispatch received from Washington this week announces that the Attorney General of the United States has given a decision in the matter, and has ruled that the new rules should apply to the Great Lakes, the Hudson and the Mississippi and other rivers so far as they are navigable by sea-going vessels.

"The laws in regard to lights, fog signals, and other matters now in force on these local waters," continues the dispatch, "differ in some respects, but mainly in minor details, from the new international rules. Secretary Carlisle has therefore transmitted to Congress a letter with a draft of a bill supplementary to the international regulations for preventing collisions at sea, which are to go into force on March 1 next. The object of the bill is to preserve local regulations and customs on rivers, harbors, and inland waters so far as is consistent with the new international regulations. The secretary urges congress to pass the bill before March 1.

"The bill retains the system of lights now in use on inland waters; requires steam vessels in fog to signal once a minute as in the present law, instead of once in two minutes as provided by the international regulations, exempts vessels on inland waters from carrying a mechanical fog horn, but requires them to carry an efficient fog horn; retains the system of passing signals now in use in rivers, harbors, and inland waters, and the system of penalties for violation of navigation rules now in force."

In an opinion of the attorney-general, dated December 22, 1894, in response to the inquiry of the secretary of the treasury, it is held regarding the rules enunciated by the members of the international conference, and passed by Congress that:

"* * * The Great Lakes are to be regarded as 'high seas' within the meaning of the statute, whatever may have been the case under the act of 1885. The new regulations are, therefore, applicable to all waters navigable for seagoing vessels and connected either with the ocean or with the Great Lakes. The new regulations are applicable to every kind of steam vessels, including ferry boats, coal boats, etc. * * * In my opinion Rules 6 and 7 of section 4233 of the Revised Statutes, relating to river steamers navigating waters flowing into the Gulf of Mexico, and their tributaries, and to coasting steam vessels, etc., navigating the bays, lakes, rivers or other inland waters of the United States, are abrogated or repealed by the act of 1890. * * *

"I entirely concur in your view that a plain provision of Congress, embodying the requisite rules for harbors, rivers, and inland waters is desirable. Congress is now in session and will remain in session until after the act of 1890 takes effect. Whatever ambiguity is found in its provisions can meanwhile be remedied by the legislative branch of the government. If there be ambiguity, and it be not so remedied, I fear that the private persons concerned will be obliged to wait for the necessary information until some collision shall have occurred and the opinion of the courts thereon subsequently obtained in the ordinary course of admiralty proceedings.

"The general purpose of the bill is to establish regulations for preventing collisions in harbors, rivers, lakes and inland waters of the United States, in accord, as far as possible, with the international regulations of the act of August 19, 1890, which will go into effect March 1, 1895, and also in accord with certain regulations now in force upon those waters."

MR. ALFRED G. SMITH has been elected to fill the position as secretary and treasurer of the New York & Cuba Mail Steamship Co., made vacant by the retirement of William H. T. Hughes.

MARITIME LAW.

CALDERON v. ATLAS STEAMSHIP CO.

U. S. District Court, Southern District of New York.

NON-DELIVERY OF GOODS—EXCEPTIONS IN BILL OF LADING—EFFECT OF ACT OF FEBRUARY 13, 1893—LIABILITY OF SHIP.—Libelant shipped certain goods on a steamer which goods were to be unladen at Savanilla; at Savanilla the goods were overlooked and not discharged, by reason of lack of care in the ship, but were carred on to other ports and finally brought back to the port of departure, when the steamship owner at once reshipped them in another vessel and they were afterwards lost in that vessel in a hurricane at sea. The bill of lading under which the goods were shipped contained various exceptions, with knowledge of which the libelant was under the circumstances held chargeable. Among the exceptions were the following: "That the carrier should not be liable for goods which are above the value of $100 per package, unless," etc.: "In case any part of the goods cannot be found for delivery during the steamers stay at the port of destination, they are to be forwarded by first opportunity when found, at the company's expense; steamer not to be liable for any claim for delay or otherwise." "This agreement is made with reference to and subject to the provisions of the United States carrier's Act, passed February 13, 1893." The Act referred to provides that any agreement inserted in a bill of lading whereby the ship owner shall be relieved from liability for loss resulting from among other things proper delivering of merchandise, shall be void. Held, on the evidence, that there was a failure on the part of the steamship to make a proper delivery of libelant's goods at Savanilla, and that the exception in the bill of lading of liability for such failure would not exempt the ship, such exception being void by the above named Act; that the steamship, in improperly carrying the goods beyond their port of destination, was thereafter liable for them as an insurer and bound to make good their loss although such loss may have been occasioned by a peril of the sea. *i. e.*, a hurricane; but that the first exception, above cited from the bill of lading was valid and under that exception libelant could recover no more than the sum of $100 per package, which sum was decreed him.

BROWN J.

FISHING TUGS CONFISCATED.

The fishing tug Grace, owned by Frederick Helwig, Willoughby, Meisner and David Waltus, of Dunkirk, N. Y., was seized on April 21, 1894, by the Canadian fishery cruiser Dolphin in Lake Erie, a few miles from Dunkirk, for illegal fishing. The seizure was made for alleged infraction of the fishery act and on that ground the Canadian government claimed the right to confiscate the boat, nets, tackle, furniture, etc. The owners of the boat set up defense by an absolute denial of the commission of any acts that could be construed as an infraction of the fishery laws. The case was argued in the Exchequer Court of Canada, Toronto Admiralty district.

Judge McDougall, who presided, has recently rendered an exhaustive opinion and in view of the number of seizures and of the enormous fishing interests in our inland lakes the decision is one of great interest to to fishermen. In so far as known the question of territorial line and other points covered by Judge McDougall have never before been specifically decided in either country.

According to the decision the alleged infraction charged to the owners of the Grace was that the vessel was found fishing in British waters within the province of Ontario on Lake Erie between eight or nine miles southwest of Port Colborne on the Canadian shore without a license from the Governor General of Canada, counsel for the owners, contented that upon the evidence of the witnesses of the Crown there was no liability to forfeiture because it clearly appeared that the Grace was fishing more than three marine miles from the Canadian coast.

Judge McDougall cites that by the treaty of Paris (1793) the boundaries between the United States and Great Britain were expressly defined and quotes that portion of the treaty describing the territorial line on Lake Erie. Speaking of the boundary line, the treaty says it passes "through the middle of said lake (Lake Eire) until it arrives at the water communication between that lake and Lake Huron, etc." International law is then quoted to show that the same principles which govern territorial law on dry land is applicable to water lines.

It is shown that the boundary lines between the United States and Great Britain run through the center of the lakes and that therefore in no sense can they be denominated "high seas." It is declared that it is an axiom of international law that every state is entitled to hold that fishing on its coast is an exclusive right of its own subjects, and the laws passed to regulate such rights are cited. The law prescribes that every foreign vessel or boat found fishing or preparing to fish or to have been fishing upon the inland waters of Canada, such vessel, cargo, etc., shall be seized and forfeited.

It was contended that the penalties of this "particular act do not apply to a foreign vessel fishing in inland waters if the fishing is done outside the three-mile limit; but it is said in the statute that the act should apply to inland waters of Canada." "Had this been the form of expression," says the decision, "there would have been much force in the contention that the three-mile limit was equally applicable to the coasts of inland waters as to the sea coasts. But what the section does say is that the act shall apply to every foreign vessel in or upon the inland waters of Canada. In other words, wherever in Canada a foreign vessel is found fishing without a license that foreign vessel incurs the penalty of the act and is liable to seizure and forfeiture."

The conclusion of all this is that if the Grace was found to be fishing, preparing to fish, or to have been fishing within the territorial boundary of Canada, as described in this instance by a line through the center of Lake Erie, her seizure and forfeiture is just. The question then arises where was the Grace fishing just before her arrest by the commander of the Dolphin?

It was established by the evidence that a line drawn from Port Colborne on the Canadian shore to Dunkirk on the American shore would intersect the boundary line about 13 miles from Port Colborne light. If the line were drawn from Port Colborne to Silver Creek, it would intersect the boundary line at a distance of 11 miles from Port Colborne light. By the wreck of the Benson, which is visible out of water and which is 7.4 miles from Port Colborne light (this distance was carefully logged) the testimony with relation to the position of the Grace to this wreck establishes that she was taken about one mile and a quarter south of it.

The distance from the wreck to the boundary line would be from 4½ to 5 miles, so that even assuming that the Grace was 3½ miles away as claimed by two of her witnesses she would then be at most not more than from 11 to 11½ miles from Port Colborne or from ½ to 1 mile north of the international boundary line. It was in evidence that the fish had been moving steadily northward all the spring and that they had worked their way from within a few miles from the American shore towards the Canadian shore; and the fishing tugs followed the run of the fish.

Upon the evidence Judge McDougall finds that the Grace was engaged in fishing wholly within Canadian waters. Judgment was entered for the Crown with full costs of suit and the vessel and outfit declared forfeited to Her Majesty.

IMPROVED CANAL LOCKS.

The New York State Engineer has completed his surveys for the proposed substitution of a single steel lifting lock for the five Erie Canal locks at Lockport. The plans for the work will be made at once and the Legislature will be asked to make an appropriation this winter to accomplish the improvement. The surveys for the proposed improvement of doing away with the sixteen locks on the Erie Canal at Cohoes and the substitution of a single steel lifting lock, are progressing.

TRADING OFF OLD TONNAGE.

Negotiations were closed at Marinette, Wis., last week, by which the Peshtigo fleet of barges and the tug Boscocel were transferred to F, W. Wheeler & Co., of Bay City, Mich. Isaac Stephenson, of that city, president of the Peshtigo Co., managed the deal, which is in the nature of a trade. F. W. Wheeler & Co., have agreed to build a new steamer this winter, which will have a carrying capacity of 700,000 feet of lumber. The steamer is to be delivered May 15. The barge fleet and tug are taken in trade by the Bay City firm, but a large cash consideration is also involved. The steamer is to cost $75,000 and the barge fleet and tug are valued at about $50,000. The five barges named in the trade are the Nocque Bay, Alert, Advance, Mantenee and Active.

Wheeler & Co. have already sold the barges Nocque Bay and Mantenee to Madden Bros., of Bay City, at a good price. The Active, Alert and Advance were also sold to P. C. Smith, of West Bay City. The tug Boscobel is to be held to bind the agreement between the Peshtigo company and the Bay City firm.

RIVER AND HARBOR IMPROVEMENTS.

Secretary of War Lamont sent to congress the report of Col. G. J. Lydecker in favor of continuing the improvement of Clinton River, with a favorable recommendation. Clinton River, says Col. Lydecker, has been under improvement by the general government since 1870, some work having been done as early as forty years ago, and has been the subject of several surveys. The repeated appropriations heretofore made show that congress has determined that the stream is worthy of improvement to the extent of maintaining a navigable channel eight feet deep from Lake St. Clair to Mt. Clemens, about eight miles above the mouth of the river. There is, however, no indication that any improvement above Mt. Clemens is desirable. The secretary favors the completion of the improvement and thinks this can be best and most economically accomplished if the next appropriation be sufficient to give a character of comparative permanence to the improvement and dikes needed for the maintenance of dredged channels.

The secretary of war also sent reports to the house relative to preliminary examination of Kawkawlin and Tittabawassee. He concurs in the recommendations of Col. Lydecker and Gen. Casey that Kawkawlin River is not worthy of improvement. The improvement of the bars within the river would probably call for a small expenditure only, and be comparatively permanent, but no channel could be made and maintained through the bar at the mouth in the open bay, except by almost constant dredging, or by constructing a very considerable extent of pier work to cover the dredged channel. The cost of either method of improvement would be too great, and the resulting benefit too limited to warrant the expense. He also reports that the Tittabawassee from Saginaw to the head of navigation is unworthy of improvement. The river is shoal, with gravel and stone bottom and obstructed throughout by innumerable piles, boomsticks, sunken logs and bars. There is no general navigation of the stream and none can be established until it is cleared of its extensive obstructions. There is no immediate or prospective commercial demand for its improvement, and the cost of engineering operations for restoring the navigability of the stream would be very great, and it is highly probable that such operations would develop long and costly legal complications.

The secretary of war has granted permission to H. A. Strassburg, of Detroit, Mich., to dredge a cut 70 feet wide, 400 feet long and 6½ feet deep, in the Detroit River in front of his property on the eastern side of Grosse Isle, and to build a small dock six feet wide, running out about seventy-five feet, with an L at the end about thirty feet wide, subject to the following conditions: That all the material dredged, as well as that cast over in making the present cut (authorized to be widened to seventy feet) shall be entirely removed and deposited at such place as shall be designated by the United States' engineer's office in charge of the locality, and that the dock shall be an open one, built on piles, to permit the free passage of water.

The secretary of war has granted permission to B. Cousins, of Mt. Clemens, to build a dock one-third of a mile long in Lake St. Clair, Macomb county, Mich., the work to be done subject to the supervision of the engineer officers of the United States army in charge of that locality.

THE MANCHESTER SHIP CANAL.

The Manchester ship canal is 35½ miles in length and has been excavated throughout to a depth of 26 feet, which depth is being maintained by dredging. The large docks at Manchester have been excavated to 26 feet and the smaller docks to 20 feet. The bottom width at the full depth of 26 feet is 120 feet, with a few exceptions in certain places.

For purposes of comparison it may be stated that the Suez canal, had, until recently, when widening operations were begun, only a bottom width of 72 feet, except at the passing places.

THE STEAMER TO BLAME.

Final decree promulgated by Judge Morris in the U. S. District Court at Baltimore awards $53,000 to owners of schooner John Holland, of Dover, and owners of cargo of coal, sunk by collision two years ago by British steamer Michigan, the steamer having been found solely to blame for sinking the schooner. The money was paid by British insurance companies.

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OUR thanks are due Superintendent Wheeler, of the St. Mary's Falls canal, Michigan, for valuable statistical matter showing the estimated value of cargoes, and the freight rates paid to Lake Superior for each season since 1887; the commerce through St. Mary's Falls canal for each calendar year from its opening in 1855 is also contained in the tables so courteously forwarded to this office by Mr. Wheeler.

NOW that the old revenue cutter Commodore Perry, has been withdrawn from her lake station and ordered to patrol duty in the Bering Sea, there ought to be another cutter detailed for lake service. In this connection we would suggest that youths brought up in lake cities desiring to follow sailing as an occupation be at all times given the preference to ship on departmental craft doing duty on the lakes.

BESIDES the activity in orders for special tonnage there is a strong leaning among the most prominent shipowners that large steel freight carriers are now the only safe investment and the smaller or medium sized craft are somewhat at a discount these times. There is no industry which has forged to the front in a more prominent manner during the past few years than that of lake shipbuilding and the transportation of freight and passengers.

LONDON *Engineering* is pleased to pay the Bureau of Steam Engineering a handsome compliment, particularly Engineer-in-Chief Melville, the designer. It says: "It is not our custom to illustrate proposed designs in the full manner we now treat those in question, but plans emanating from the United States Bureau of Steam Engineering deserve more than usual attention. The designs were got out under the supervision of Mr. Melville, the chief engineer of the United States navy (who commanded the services of an exceptionally able staff selected from the best and brightest engineers in the United States service) especially for the great re-construction of the American navy, one of the most remarkable features in the peaceful records of modern navies."

Mr. Glynn, chairman of the works committee of the Mersey dock board at Liverpool. England proposes to build steamers one thousand feet in length and to cross the Atlantic in three and a half days. Shipowners generally admit that the project is visionary and that the paying limit has been reached in the new Cunarders and no larger boats would be built. Mr. Glynn, however, is not of that opinion and is quoted as saying: "The talk about the paying limit, as exemplified by the Campania and Lucania, is ridiculous. Twenty years ago the boats employed in the Atlantic trade were 229 feet long. Now they are 600, although there is less room for passengers proportionately in the Campania than in one of the old boats, owing to the demands of the new machinery. Shipowners are the worst people in the world to give opinions on the financial aspect of the plan. They do not wish to build larger boats because they wish to make as much money as possible. That is not the point, however. The needs of trans-Atlantic business will decide the question.

LIFE SAVING ON THE LAKES NOT TO BE RECOGNIZED.

John B. Carlisle, Secretary of the Treasury, seems to have gone decidedly out of his way in ruling that deeds of bravery in the saving of life on the Great Lakes can no longer meet with national recognition in the awarding of medals for personal heroism. There are quite a number of cases wherein the Treasury Department has taken cognizance of personal acts of heroism in the saving of life on the lakes, and have even granted a set of medals to volunteer life savers in Canada for risking their lives on Lake Huron to save the crew of an American vessel; but, alas the day, "a Daniel has now come to judgment," and American heroism on fresh water is no longer to be taken any account of.

For many years it has been the custom of this government to award with appropriately inscribed medals the personal heroism of those that face the perils of a storm, to rescue lives on the navigable waters of this country. No discrimination as to time or place has ever interrupted the conferring of these worthy acknowledgments upon those entitled to receive them, until the issuance of a rule made recently by Secretary Carlisle.

Under this latest ruling it will not be the policy of the government to issue medals for personal heroism to those rescuing lives in the waters of the lakes. The reason for this remarkable ruling is not set forth in the dispatches, but it is presumed that the secretary must base it upon some question of expediency.

It is difficult to understand why Secretary Carlisle should have decided that the law which authorizes the giving of medals for deeds of bravery in the light-house and merchant marine service of the United States applied only to the high seas and not to the Great Lakes. If that construction of the law stands, many real heroes who have the opportunity to distinguish themselves in the terrible storms which sweep over the inland seas will have to go without government recognition, such as has been given them in the past, nor can we understand why such a discrimination should be made even to subserve expediency. If a vessel were to founder in a gale, say off Milwaukee, on Lake Michigan, and a life saving crew should at imminent peril, breast the angry waves and rescue the ship's crew, one cannot imagine why their valor would be less entitled to recognition than the valor of a crew performing a like service on the Atlantic coast.

Secretary Carlisle's motives and his reasons for abridging the good old custom in the manner he has done may satisfy his conceptions of duty, but they will not appeal to a sympathetically grateful public as being defensible. American heroism should be rewarded without regard to maritime boundaries or geographical limitations. Or, if the present form of medals may not be so awarded, then a new design ought to be immediately struck off for presentation in cases of distinctively personal heroism.

Secretary Carlisle may not know it, but there are thousands of people who do know that there are just as many heroes in the marine service on the Great Lakes, in proportion to the number of men employed, as will be found on the oceans.

FOREIGN INSURANCE.

While it has been beyond a doubt for some seasons past that foreign insurance not regularly entered and represented in the United States was engaged in an illegal traffic, the question has again come up in a decision just rendered in the United States Supreme Court by Mr. Justice White, wherein the problem is clearly solved that "insurance is not commerce," thereby, in this case, empowering the State of California to punish offenders against the law forbidding the placing of business in companies not fully complying with the statutes, and from this latest decision it would appear that underwriting of foreign companies must soon be eliminated from lake traffic, in such a manner, that unless desiring to openly transgress the laws, vessel owners on the lakes will be deprived from using foreign insurance capital. More distinctly does this occur to us as a Supreme Court decision is final in determining the action of State and local courts.

It is of course a matter of personal business circumspection for managing owners of large fleets to see clearly the legal status of the transaction before placing large lines of insurance abroad. In the foregoing decision, which we have alluded to, Mr. Justice White said on this subject: "The contention here is that inasmuch as the contract was one for marine insurance, it was a matter of interstate commerce, and as such beyond the reach of State authority and included among the exceptions to the general rule. This proposition involves an erroneous conception of what constitutes interstate commerce. That the business of insurance does not generically appertain to such commerce has been settled since the case of Paul vs. Virginia, supra." The momentous question, however, for the vessel owner to decide is, how to obtain reliable indemnity against losses on the most liberal terms of policy and at an economical cost of premium. This we surmise can now be easily answered, contrary to the uses and customs of years ago. At this time we have enough domestic capital eager for lake hull insurance, fully in touch with the importance of the field of lake underwriting and determined to compete for large lines on hulls on just as liberal a policy as can be obtained abroad. This view we take from expressed opinions of underwriters who represent companies that have complied with the United States laws and are, as we have said, authorized to meet all competition in policy forms with corresponding rates of premium offered by foreign and therefore illegal interests. Furthermore is our judgment strengthened in this direction by the action of lake underwriters at their last annual meeting, at which time we found a more liberal code of ideas prevalent and a desire to come up to the times in all transactions between assurer and assured.

In pursuing the subject of foreign insurance as being a matter of commerce and therefore amenable to local laws we quote Mr. Justice Field in his decision of Paul *vs.* Virginia, he said: * * * "The business of insurance is not commerce. The contract of insurance is not an instrumentality of commerce. The making of such a contract is a mere incident of commercial intercourse, and in this respect there is no difference whatever between insurance against fire and insurance against "the perils of the sea." So that by such a rendition we can not but hold that foreign capital invested in insurances without being regularly entered and represented in the United States, and by that we mean conforming with the laws extant on the subject of underwriting, are, to say the least, engaged in a rather risky and questionable mode of collecting the lucre.

THE steamboat inspection service grants certificates of seaworthiness and equipment to all steamers under the flag; furthermore, whatever casualty may happen it is the judge of its own acts and efficiency. Local inspectors of more or less repute issue all licenses to engineers, masters and pilots, and they also are the sole arbiters of a candidate's fitness, this much being known, positive, favorable influence has no doubt been brought to bear in the past, and the probability is that certain endorsements on the applicants' form for examination have had great weight with the local inspectors, who by the way, may have been given their positions mainly through the efforts of the signer or signers on the candidate's application form. We don't say that this is so, but the temptation to assist an influential patron in granting a license or certificate to the applicant whose papers are signed by him should be put out of the reach of all local inspectors. In the event of a candidate objecting to the rulings of a local inspector, he has the right of appeal to the supervising inspector of the district, and the supervising inspector ought also to be given the discretion of granting or refusing original licenses to all officers within his district, thus taking the burden of proof off the shoulders of the locals. This may be done by having a regular form of examination at each and every port and the candidate being obliged to write down his answers, as well as going through a *viva voce* examination before the locals.

OF the Nicaragua Canal question now before congress, the January *Review of Reviews* says: "To speak in general terms, and not to enter upon the discussion of details, it would seem a clear proposition that political and financial authority and control of the United States government ought to dominate the affairs of the Nicaraugua Canal. It is true that Nicaraugua is not a portion of the United States; and yet, in a very important sense any deep water channel across Central America would constitute a most essential part of our national coast line. England's interest in the Suez Canal on account of her hold upon India has a very shadowy validity in the nature of things, when compared with the propriety of a full control by the United States of the Nicaragua Canal."

THE Fithian free ship bill, as originally introduced into congress, simply authorized the purchase of any vessels built in any foreign country and their registry free of duty as vessels of the United States. A subsequent amendment to the bill provided that such ships should not be used in the coastwise trade. As we have frequently observed, it has not yet been explained how any such vessels when flying the American flag, when bought with American money and owned by Americans, can be prohibited from trading between any one coast port and another in the United States. It would be decidedly unconstitutional to attempt to restrain the movement of any ships that might be flying the Stars and Stripes in American waters. The object of the amendment of the bill looks like a blind to deceive those who objected to the original measure and who are now engaged not only in our coastwise trade but also in our lake and river commerce.

THE earlier that lake shipmasters can send a qualified delegation to Washington so as to point out some of the inconsistencies in the contemplated changes of the "Rule of the Road," the less chance there will be of an impracticable code being foisted upon the lake marine next season. Mr. C. H. Keep, secretary of the Lake Carriers' Association, appears to be doing his level best in the interests of the lakes, but he should not be left to do battle without the strongest and best technical backing and advice.

APPROPRIATIONS FOR THE LAKES.

The sundry civil appropriation bill, which was reported to the House on Tuesday by Chairman Sayres, provides for all the lights which were urged as indispensable by the light-house board. No gas buoys were provided for. Sandusky gets nothing for its harbor, in spite of the efforts to insert an appropriation of $250,000. The appropriations recommended are as follows: Light and fog station, Chequamegon point, Wisconsin, $10,000; permanent tower at Devil's light and fog signal station, Wisconsin, $22,000; keeper's dwelling at Grand Marais light station, $4,000; re-establishing light station at or near Mendota, Bete Grise Bay, $7,500; Portage Lake ship canal, pier head fog signal, $5,500; steam fog signal at Manitowoc pier head light station, $5,500; light and fog signal at North Manitou Island, Lake Michigan, $20,000; range lights and steam fog signal on or near Plumb Island, at Death's Door, Michigan, $21,000; fog signal at South Fox Island, Michigan, $5,500; light station at Sturgeon Bay ship canal entrance, Wisconsin, $20,000; steam fog signal at Sheboygan pier head light station, Wisconsin, $5,500; constructing a revenue steamer for service on lakes, $100,000; continuing improvement of Hay Lake channel, St. Mary's River, $150,000; St. Mary's River at Sault Ste. Marie, Mich., $483,865; improving the channel, making twenty-one foot navigation through the connecting waters of the lakes between Chicago, Duluth and Buffalo, $500,000; charts for lakes, $2,000; surveys and engraved plates, $25,000. Making a total of $1,387,365.

OBITUARY.

Simeon Cobb, a well-known pioneer and vessel owner of Chicago, died Monday morning, at his home 887 Washington Boulevard, after an illness of only a few hours. Two years ago he suffered from a severe attack of pneumonia and his health has been somewhat affected ever since. Sunday at midnight he was taken with what appeared to be a case of heart failure. Physicians were called in and succeeded in allaying the pain so that Mr. Cobb fell into a profound sleep. A few hours he passed quietly away without having regained consciousness. The deceased was born in Salem, Vermont, July 8, 1836, and was the son of Elbridge Cobb, a blacksmith. He obtained his education at the public schools of Boston. From that city he came to Chicago when about 17 years old and secured a situation in the shops of the Chicago & Northwestern Railroad. He showed such an aptitude for mechanics that he was sent to the company's shops at Janesville and became master mechanic. Afterwards he was a marine engineer on the Lakes until he set up in business for himself. His first venture was the building of two steam lighters to ply on Chicago River. This was before large vessels were able to enter the stream and Mr. Cobbs lighters ran from the harbor to the stockyards carrying cargoes of general merchandise. The enterprise proved successful and through it he accumulated considerable means. These old lighters were used in carrying the first brick that were used in the construction of the old crib.

In 1867 he had the steam barge George Dunbar built at Allegan, Mich. She being the pioneer single deck type of steam barge built for the lumber trade at this port. He afterwards became the owner of the steam barges Annie Laura and Emma E. Thompson all of which he owned at the time of his decease. Mr. Cobb was married about 25 years ago to Miss Lida Pratt, of Chicago, who survives him. The deceased was a man well known for his integrity and uprightness in all his dealings, and his sudden taking away is deeply deplored by a large circle of friends.

TO ENTER GREEN BAY.

The Menominee *Enterprise* announces on the strength of information from Mr. Allison that a combined effort will be made by the Ann Arbor car-ferry steamers Nos. 1 and 2 to reach that port from Frankfort early the present week. A full complement of loaded cars awaits the arrival of the two steamers at Menominee. The chief difficulty to be encountered is in the vicinity of Death's Door, where anchor ice has been forced by the winds to a depth of between 12 and 15 feet. The level field of ice of regular formation in Green Bay can, it is thought, be passed through without much hindrance. If the steamers succeed in reaching Menominee they will continue to run there for the present at least.

AN ELECTRIC LOG.

AN electric log, the invention of Rear-Admiral Fleurias, has recently been adopted in the French navy. A set of revolving vanes on the log impart, through worm-gearing, motion to an ivory disc mounted in the log, and a spring makes contact with metallic plates placed at intervals on the rim of this disc. As this contact takes place, a bell is sounded aboard ship, once for every 24 revolutions of the vanes. The interval between signals is arranged 11 seconds for 8 knots, 8.8 seconds for 10 knots, 4.4 seconds for 20 knots, and is, therefore, of sufficient length to prevent error. To indicate fractions of a second, the usual sand glass has been displaced by a pendulum indicator which beats at intervals of two-tenths of a second, and which is started at the moment of taking an observation. A mistake of half a second, with a period of 50 seconds, makes an error of only one-tenth of a knot in the speed of the vessel; if the observation is prolonged the error is reduced. The apparatus is simple, and apparently gives good satisfaction. The log is about 9¾ inches in diameter and is not watertight.

MORE CAR-FERRY RUMORS.

The establishment of a line of ferries between Milwaukee and South Chicago is being considered by the Pabst Brewing Co.

The purpose is to ship freight in car load lots from Milwaukee to South Chicago, thus saving the switching charges and avoiding the delays incident to sending freight to points beyond Chicago, and by so doing partly ircling the lake, besides the rail haul between Chicago, and the switching charges amount to $15 per car.

The plan is being worked out by the Pabst Brewing Co. Although nothing definite is decided yet, two or three ferry boats may be built, capable of carrying about thirty loaded cars on a trip, the boats to make daily trips between Milwaukee and South Chicago.

The gross profit over the all-rail and switching charges of the ferry line between Milwaukee and South Chicago will be about $450 on a cargo of thirty cars. Traffic Manager Howe, of the Pabst Co., says that the ferries will cost about $150,000 each, and that they may be run to other lake ports. St. Joe, Mich., for instance, when the business of the shippers demand it. It is said that Capt. Pabst, the millionaire brewer,, before leaving Milwaukee for his foreign trip, instructed Mr. Howe to investigate the matter and to prepare plans for carrying it into effect, should the result of his observation warrant it. It is possible that some of the other brewing companies will also become interested in the proposed company.

Mr. Howe admitted that the matter was being considered and said that, if formed, the company would carry cars containing all sorts of freight.

CONTRACTS FOR NEW TONNAGE.

While rumors of large new tonnage to be contracted for, has been going the rounds for several weeks, the next actual transaction recorded since M. M. Drake of Buffalo placed an order with the Cleveland Ship Building Co., is the recent contract placed by Eddy Bros., Capt. John Shaw, and Capt. Howard Shaw, of Bay City, with F. W. Wheeler & Co, for a new steel steamer, which will be one of the largest freight carriers on the lakes. Her general dimensions are to be 352 feet keel, 372 feet over all, 44½ feet beam, and 37 feet hold she will cost upwards of $225,000. Work will begin immediately and the boat will be finished by July.

F. W. Wheeler & Co. have also commenced work on a sister boat to the Minnie E. Kelton for the Stevenson Transportation Co., of Marinette. The laying of the keel for this vessel opens work in the wooden yard of this firm's extensive plant, and furnishes labor for a class of workmen who could not find employment on the steel boats. The new vessel is to be completed by the opening of navigation and is to be furnished with more powerful engines than were put into the Kelton. In addition to this contract there is every prospect that another contract with Detroit parties will shortly be closed for another wooden lumber carrier which is to carry about 1,000,000 feet and is to cost somewhere between $75,000 and $100,000. The Detroit firm is already the owner of a fleet of four or five lumber barges, but wants to discard these for modern lumber carriers.

The four hundred feet mark has been reached in lake tonnage, a contract having been placed with the Chicago Shipbuilding Co. for a boat of that length by the Interlake Co., which is composed of the owners of the steamers Kearsarge, La Salle & Wolvin, of Duluth, Pickands, Mather & Co., of Cleveland, and others.

The dimensions of the new steamer are to be length over all, 400 feet; on keel, 380 feet; beam, 48 feet; molded depth, 28 feet. She will have a water bottom 5½ feet in depth and will carry about 4,500 tons on 14½ feet draft and about 6,000 tons on 18 feet draft. She is to be supplied with a powerful triple-expansion engine and scotch-type boilers. The estimated cost of the new boat is given as $225,000, and it is expected to have her ready for launching on July 1, so that she may go into commission in time for the early fall trade. She will probably be of the same general model as the Kearsarge, but a considerably larger carrier, as her dimensions are greater. The Cleveland Shipbuilding Co. will build her engines and boilers, dimensions of which are given in our Cleveland letter.

In addition to the foregoing Capt. Byron Inman, of Duluth, to-day closed a contract with the Jenks Shipbuilding Co., of this city, for the construction of a new tug. The new boat will be modeled somewhat after the tug Boynton, and work upon her will be begun at once.

STEAM TOWING MACHINE.

Capt. John Corrigan, Cleveland, O., after using one of the patent steam towing machines manufactured by the American Ship Windlass Co., Providence, R. I., for two years on the powerful steamer "Aurora" on the lakes, gives as his final decision that the machine will pay for itself every two years. People interested in towing should examine this machine in operation.

AN AUTOMATIC STEERER.

AN automatic steering compass has been invented by Lieut. Bersier. The electric spark of a Ruhmkorff coil is made to unite a pointer on the circumference of the compass card with either one or two semi-cylindrical, metallic plates, which are electrically insulated from each other and from the compass box or binnacle. The coil is placed a few yards from the compass, and is supplied by an alternating current of from two to three amperes. The induced current of the secondary coil reaches the pivot of the compass through a flexible wire, and passes thence to the aluminium capsule that carries the sapphire, and follows along an aluminium wire or pointer which forms a radius of the north pole of the compass. As the ship deviates to the right or left of her course, the current leaps (through a distance of about an inch) from the pointer to the right or left hands insulated plate in the binnacle, and thence flows through one of two electric magnets, which in turn, close the circuit, in one direction of rotation or the other, of a small 150-watt motor. The shaft of this motor is keyed to the shaft of the rudder motor, which moves the rudder in the direction required to bring the ship back to her course. It is reported that the compass card is entirely uninjured by the current or spark, and that the device has been tested in squadron practice for two months with complete success.

INSURANCE LITIGATION.

Although the wooden steamer Roanoke, which for a number of winters covered the route between Grand Haven and Milwaukee, was totally destroyed by fire on Lake Superior early in August, 1894, the insurance that was carried on her has not yet been paid over. The amount of the insurance was stated at the time to have been $14,000 on a $50,000 valuation. Some of the underwriters have refused to pay, it seems, because they hold that the steamer was insured on over-valuation; others because they are not satisfied as to the origin of the fire which destroyed the craft. Recently the North British Mercantile Traders' Insurance company expressed a willingness to pay their share of the insurance money, provided it could be shown that there had been no over-valuation, and in order to definitely settle this question they caused to be appointed a commission consisting of Capt. W. D. Robinson of Buffalo and W. H. Wolf of Milwaukee, with Capt. John Fitzgerald of Milwaukee as umpire, to determine what the Roanoke was actually worth at the time of her destruction. The commission completed its labors in Milwaukee a few days since and appraised the steamer at $42,500. This sum will be used by the companies named as the basis of a pro rata settlement of their risks if over-valuation is clearly shown. The remaining companies, whose agents are inclined to question the origin of the fire, according to current report do not propose to settle their risks unless compelled to by the courts.

Another case is that of the Ogemaw. Late in the fall of 1891 the Ogemawa steamer of 333 tons measurement, laden with iron ore, sprung a leak on Green Bay and sunk off Burnt Bluff, at the entrance of Big Bay de Nocque. The Ogemaw was owned by a syndicate of Buffalonians headed by Edward Smith as managing owner. To this syndicate the underwriters paid $35,000 on a valuation for the steamer of $50,000, or $8,000 less than she might have been insured for. In 1893 the Murphy Wrecking Co. of Detroit began the work of raising the Ogemaw and carried it to a successful conclusion early in 1894. After the craft had been relieved of her ore cargo she was towed to Detroit, put in thorough repair and again placed in commission. It turns out now that the underwriters who had paid over insurance money on the sunken steamer were interested in her recovery fully as much if not even more than the wrecking company, for it is now announced in insurance circles that they have notified the owners to whom the insurance money was paid of their intention to begin proceedings for the recovery of the money on the ground of the discovery of an open seacock or some such thing which caused the sinking of the boat. This move must have caused genuine surprise among the members of the syndicate who had owned the Ogemaw, some of whom, it is safe to say, know no more about scuttling a steamer than they do about running one.

WOODEN ICE CRUSHERS.

The Ann Arbor railway car-ferry steamers have scored a failure as ice breakers, for what is true of one may be accepted as equally true of the other. When the Ann Arbor No. 1 reached Menominee on Monday last week after having passed through a continuous ice field from Death's Door across Green Bay the feat was hailed as an indication that the route could be traversed throughout the entire winter. But greater difficulty confronted the steamer on the return trip to Frankfort. Upon nearing Death's Door she encountered and got caught in a field of heavy drifting ice which carried her ten miles out of her course and dangerously near Washington Island. Her forward wheel was worked in addition to the two stern wheels, but failed to accomplish anything. A shift of wind enabled the steamer to extricate herself on Wednesday after an imprisonment of eighteen hours, and she reached Frankfort without farther incident. The experience of the No. 1 demonstrated the impossibility of maintaining a winter route between Frankfort and Menominee, and she is now plying regularly between Frankfort and Kewaunee as of old, A large number of loaded cars east-bound have accumulated at Kewaunee, and all freight received at Menominee will hereafter be forwarded to that point for transit eastward.

It appears that on her passage to Menominee last Monday the No. 2 successfully punctured several windrows of ice just after passing through Death's Door and thereafter until Menominee was reached she moved through a sheet of ice which averaged four inches in thickness. There was really nothing in this feat that any one of the five Flint & Pere Marquette steamers, but more particularly the Nos. 3, 4 and 5, could not have accomplished just as easily. The return trip demonstrated further that when the steamers now plying between Milwaukee and East shore ports are stopped by ice floes the Ann Arbor car-ferries will find themselves blocked also. As ice-breakers they are not in it with the Saint Marie and St. Ignace, which cross the Straits of Mackinac.

TO ORGANIZE THE LONGSHOREMEN ON THE LAKES.

For the next two or three months the officers of the Longshoremen's National Association propose to push the work of organization, so that when navigation opens in the spring the large ports along the chain of lakes may be working in harmony under charters from the parent organization of the workers of the docks. It is said to be essential that all the ports be got in line, so that vessels loaded in one city by union men may be discharged of their cargoes at their destination by the same caliber of workmen, which is not now the case. To this end an organizer is at work and Harry Barter, national secretary-treasurer, talks this way in a circular just issued:

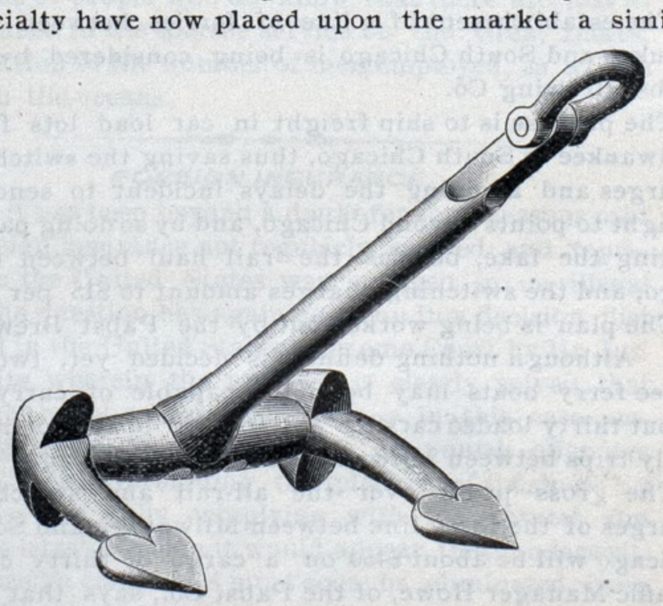
"Let it be understood that this association is not a radical, anarchistic, striking machine, but a body of intelligent workmen banded together to advance the interests of the calling at which we earn a livelihood. Remember that the greater part of our working hours are occupied at our trade or calling, and for all we know, it may be the greater part of our lives. Such an organization should not be objectionable to any one, either employer or employe, for where will better work be obtained than from a body of organized and comparatively contented men, who, through being organized, understand their rights, educate themselves to the fact that the inierests of labor and capital are more or less identical, and command respect as a body, capable of meeting the employer and debating subjects which interests them most."

QUADRUPLE GRIP STOCKLESS ANCHOR.

ILLUSTRATED.

The Watertown Brass and Manufacturing Co., Watertown, N. Y. introduced last year an efficient triple grip stockless anchor which met with exceptionally good favor among the owners of medium-sized tonnage and especially yacht owners, who found that greater reliance could be placed on their ground tackle by the use of these multiple grip anchors than from any other appliance which has yet been invented.

Having made such a success with the triple grips, the manufacturers desiring still further to improve this specialty have now placed upon the market a similar



anchor having a quadruple grip, and as can be seen from the accompanying illustration, it is positive in its operations and from its unique construction the flukes must take hold if there is any kind of a bottom for ground tackle to hold in.

The Watertown Brass and Manufacturing Co. make a specialty of yacht and boat fittings and the entire equipment from a sail needle to an anchor, furnishing the highest class goods promptly at moderate figures, and as the principals of the company are practical men there is every possibility of their patrons getting exactly what they want in the way of trimmings, fittings and equipment for special as well as fancy tonnage.

NOTES.

WHEN a labor-saving machine appears on the market the Southern and Western men are quick to adapt it to practical purposes. The American Ship Windlass Co., of Providence, R. I., is receiving repeated orders for the small steam capstan it designed for light river craft on the Southern and Western Rivers, and we learn that every one of these machines sold calls for several more as soon as people see it in operation. This capstan only weighs 800 pounds, but saves the labor of several men, and consequently is becoming very popular.

THE suit of damages brought by Mr. William H. Vanderbilt against the Metropolitan Steamship Co., one of whose vessels ran down and sank Mr. Vanderbilt's steam yacht Alva, as she lay at anchor off Bar Harbor, with a party of guests on board, a little over a year ago, has been successful. The District Court of Boston, has given judgment in his favor, assessing the damages to be awarded at $220,000. The accident happened at night, and Mr. Vanderbilt's guests, glad to escape with their lives, lost all their personal effects. Efforts to raise the Alva were unsuccessful, and she proved a total loss.

SECRETARY of the navy Herbert has issued an order in which he promulgates the views of the navy department with regard to the responsibility of pilots on board navy vessels. He says: "The accident to the U. S. S. Cincinnati, upon the occasion of her striking ground on the eastern side of the shoals to the south and west of Execution Rocks Light-house, Long Island Sound, on the 16th day of November last, renders it expedient that the department promulgate to the service its views with regard to the responsibility of pilots on board vessels of the navy. A pilot is to be considered merely as an adviser to the commanding officer, and his presence on board a vessel shall not relieve the commanding officer of such vessel, or any of his subordinates, from full responsibility for the proper performance of the duties with which they, or any of them, may be charged concerning the navigation of the vessels."

THE United States navy department has recently completed a test of aluminum as a material for ships' boats, with the object of determining its adaptability to naval uses. The utility on board ship of this material is much decreased by its susceptibility to the corrosive action of salt water. Accordingly, two sheets, 1-16th of an inch thick, were immersed for three months at the Norfolk navy yard. One was of pure metal, and the other slightly alloyed with nickel. The pure plate was thickly covered with barnacles throughout the surface, and was more or less pitted by the action of salt water. The alloyed plate was incrusted with smaller barnacles and was badly corroded, being perforated and eaten away over much of its exposed surface. This plate was as injuriously affected as a combination of iron and copper would have been with the same exposure. The claim that barnacles would not adhere to the metal was not substantiated in the smallest degree; consequently, aluminum cannot be recommended for use in salt water.

TRADE NOTES.

The Soo City Machine and Boiler Works, Sault Ste. Marie, Mich., have changed the name of the company to The Soo Machine Works. Mr. James A. Lawrie, the lessee, earned and gained an excellent reputation for prompt and efficient marine repair work at the Soo last season, also in furnishing engineers' supplies. The change of firm name is for the sake of brevity alone, and the business will be carried on next season with the same promptitude and dispatch that the company's orders received last year.

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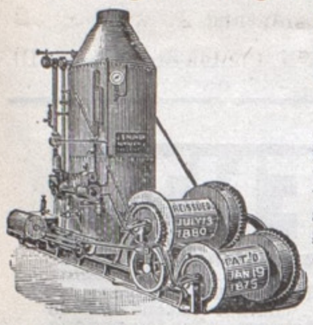

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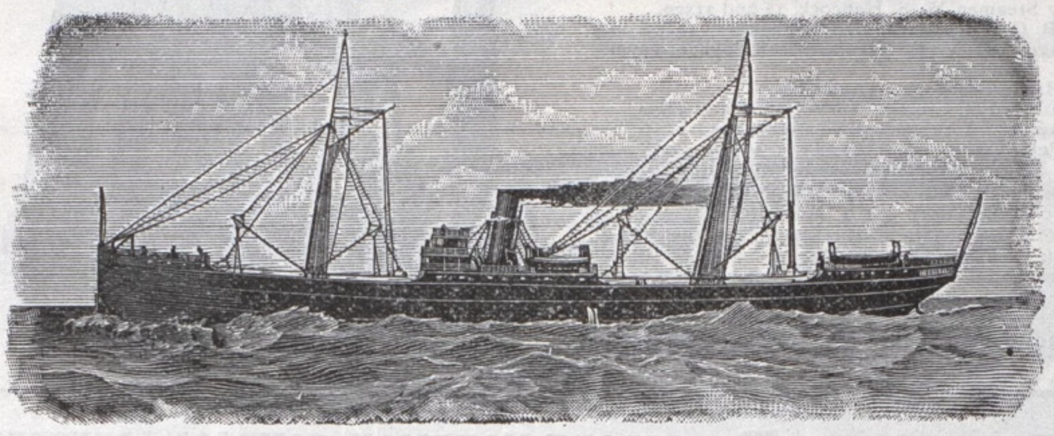

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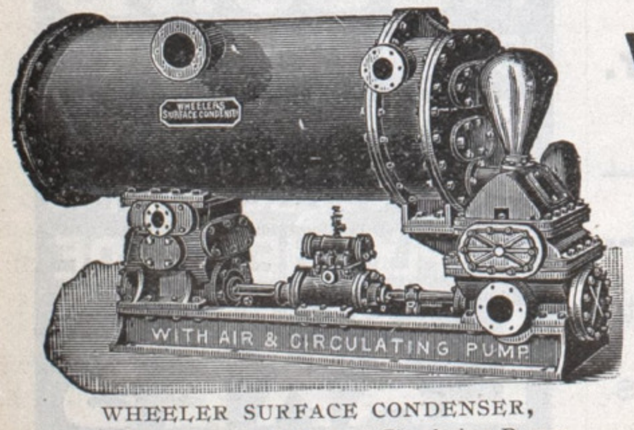

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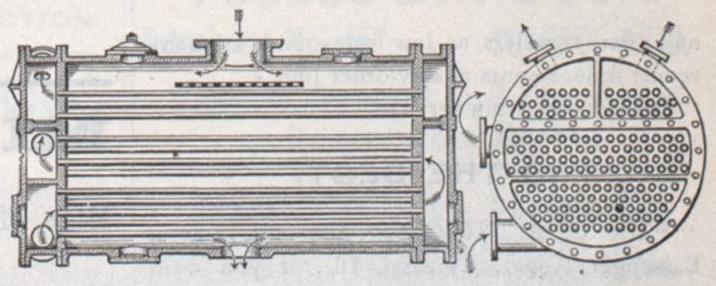

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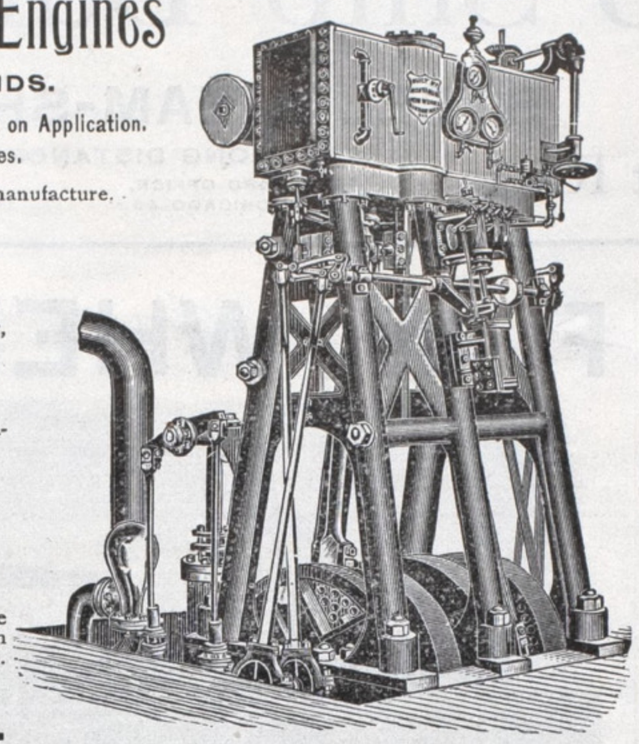

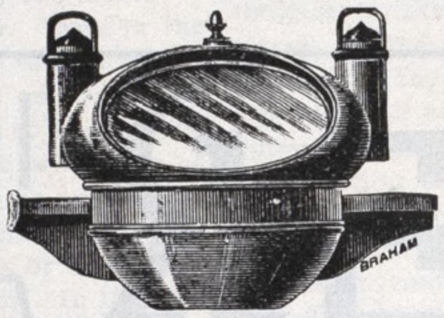

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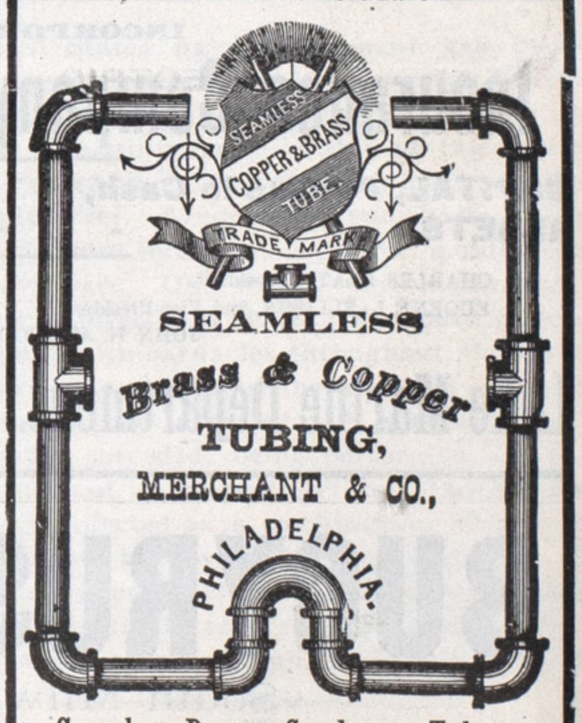

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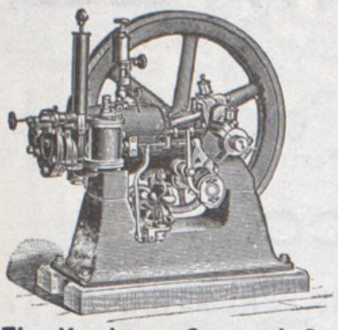

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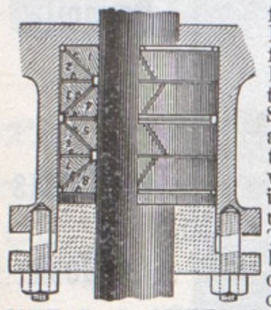

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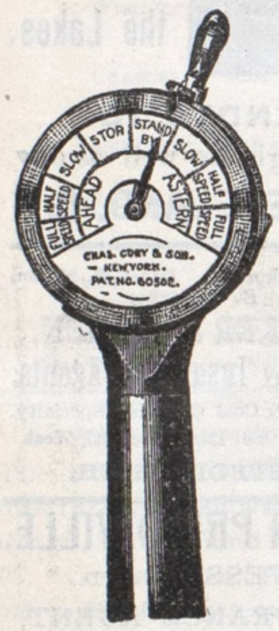

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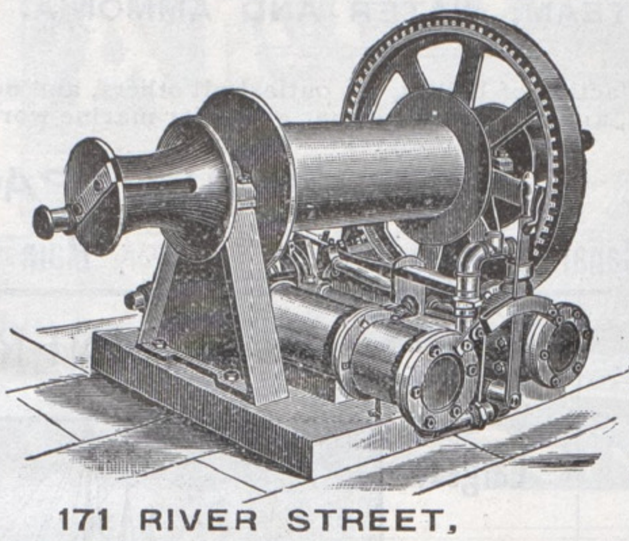

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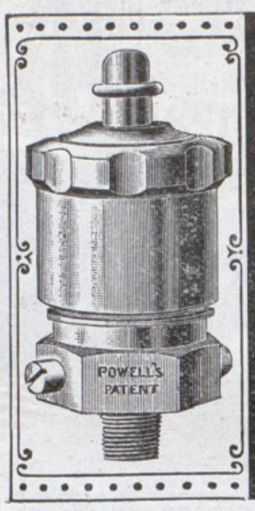

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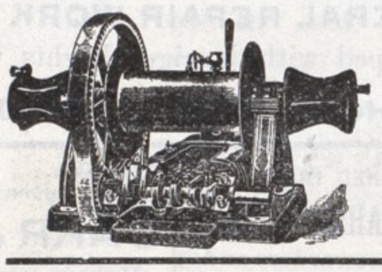

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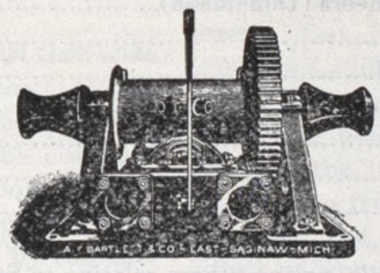

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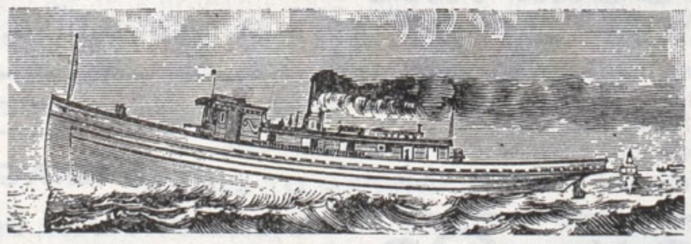

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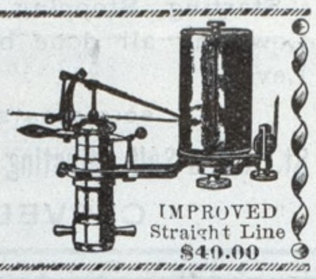

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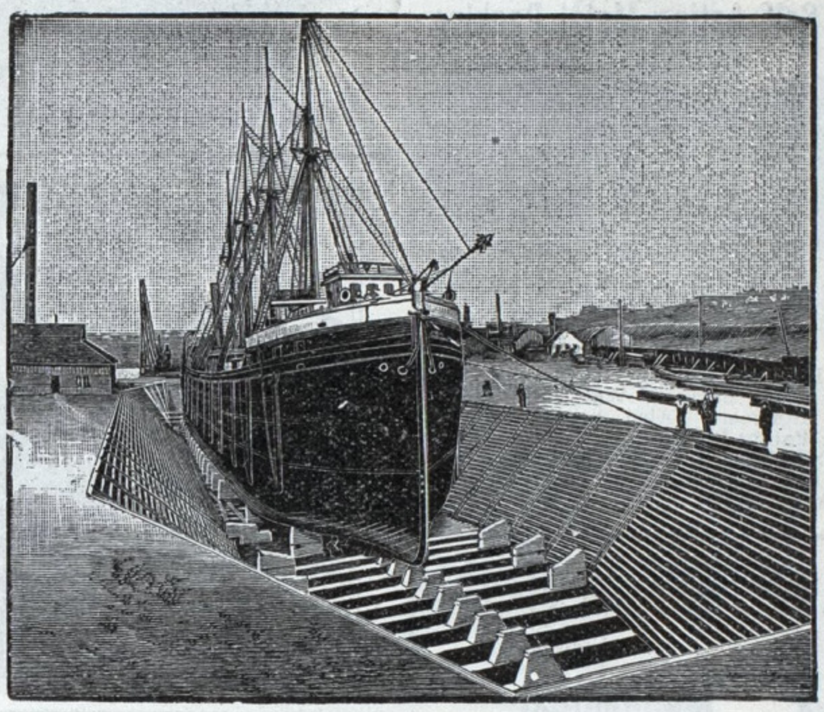

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